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THE MAN-OF-THE-EARTH OR WILD POTATO VINE

OLIVER PERRY MEDSGER

I wonder how many botanists have dug out a root or tried to dig out a plant of the Man-of-the-Earth or Wild Potato Vine, *Ipomoea pandurata*. This vine belongs to the same genus as the Morning-glory and Sweet Potato, and is often quite common in old fields and along roadsides. It prefers a light, sandy, or gravelly soil, and ranges from Connecticut to Ontario and Michigan, on South to Florida and Texas.

This vine is rather stout and smooth, from four to ten feet long, with heart-shaped or sometimes halbert or fiddle-shaped leaves, and large, white funnel-formed flowers with a deep purple eye.

A few years ago, I undertook to dig out a root of this plant. A fine large vine was selected, but the root went so deep and the ground was so hard and dry that after an hour's work, the task was given up.

A year or two later, after a season of rainy weather, I again attempted to satisfy my curiosity and this time with better success. A good healthy plant was selected, with vines not more than six or seven feet long and in a situation where digging would be easy. From the surface of the earth, two root-like stems extended almost vertically into the ground for about a foot and then suddenly enlarged into a great fleshy root. The herbaceous vine dies each autumn, but the root remains in the ground year after year, the greater part of it being below the frost-line. In the early summer when the effect of the warm rays of the sun reaches this reservoir of food, a stem is quickly pushed up through the soil and the plant spreads its leaves and flowers to the light.

After digging for two hours or longer, I had a conical hole five feet in diameter and at least three feet deep, but the end of the

root was not yet reached. I took hold of it to see if it would loosen from the ground and the end broke off, as the illustration shows, leaving a small part of the root in the ground. The part shown in the photograph was about two and one-half feet long and weighed fifteen pounds.

The Bush Morning-glory, *Ipomoea leptophylla*, which grows on the plains just east of the Rocky Mountains from Nebraska to Texas, is said to have even a larger root, and that of *Ipomoea Jalapa*, a species of the South Atlantic and Gulf Coast, is reported to frequently reach a weight of from forty to fifty pounds.

Like the Sweet Potato, the roots of the Man-of-the-Earth are brittle and slightly milky when fresh, but unlike the former plant, there is only one root to the vine. I once saw an old orchard where the plants were numerous. The hogs running in the orchard learned that the great fleshy roots were sweet and edible. In order to get them, the hogs rooted large funnel-shaped holes often three feet deep. They fairly stood on their heads to get at the bottom of the roots. The Indians named this plant the Mecha-meck and without doubt it was a favorite food among them. They could easily roast the fleshy roots in the ashes of their camp-fires.

Last September, I found many plants of this species in a vacant lot at Arlington, New Jersey. They grew among bushes, which they used as supports and became rather vigorous climbers, sometimes nearly covering shrubs five or six feet high. I dug out one of the roots. It weighed only a few pounds, but went more than three feet deep. Next season I want to try the edible qualities of the roots.

The large white blossoms of this plant remain open through most of the forenoon and in cloudy weather, they often do not wilt until late in the day. The large hawk moths come to the blossoms in the evening and at night, but during the day they are visited by several species of bees. Prof. Robertson says it depends chiefly upon two species of bees for pollination—*Eutechnia taurea* and *Xenoglossa ipomoeae*. I have also found bumble bees visiting the blossoms and a long-tongued burrowing bee known to insect men as *Emphor bombiformis*. The geographical range of this plant is probably much wider than that of most of the insects that visit the blossoms, therefore the insects that seek the flowers in Texas would probably not be the same species as those that come to it in Southern New England.

I am convinced that plants of the Man-of-the-Earth get very old. On my father's farm in Southwestern Pennsylvania, a few plants grew in a field (the root shown above was from that group). For eighty years, the land was cultivated, alternating in corn, oats, wheat, and grass. When in sod, which was for only two or three years at a time, the plants would grow and bloom, but were not often seen when the cultivated crops were growing. The number of plants did not seem to increase or decrease as the years went by. Another plant grew on a bank by the roadside where year after year it came up and bloomed. It was there when I was a boy, and apparently the same plant, for there was but one, decorated the roadside the last time I went by the place. I would not be surprised if plants of this species sometimes live and bloom for half a century.

Explanation of plate III

Blossoms of Wild Potato Vine, *Ipomoea pandurata*. Photograph by O. P. Medsger.

Root of Wild Potato Vine (resembles a petrified dog). Photograph by O. P. Medsger.

LINCOLN HIGH SCHOOL,
JERSEY CITY, NEW JERSEY.

ALPINE PLANTS OF KASHMIR*

RALPH R. STEWART

Kashmir is an Indian State in the North West Himalayas. It is all mountainous with the exception of the famous Vale of Kashmir, at an elevation of 5,500 feet, which may now be reached by a good motor road from Rawalpindi in the Punjab. During the past twelve years I have spent parts of seven summers collecting in Kashmir and am now working over the material in The New York Botanical Garden.

The same four main zones that Rydberg found in the Rocky Mountains are to be found in Kashmir. The foothill zone is arid and the commonest tree is *Pinus longifolia*. In the lowest foothills there is a thorny scrub jungle with such trees as *Acacia*, *Bauhinia* and *Pistachia* and at the upper limit of the zone oaks are very common.

* Abstract of a talk before the Torrey Botanical Club, January 30, 1924.